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10/577,710	04/08/2009	**Christian Wengerter**	L7725.06106	8631

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EXAMINER	
NGUYEN, DAVID Q	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,710	WENGERTER ET AL.	
	Examiner	Art Unit	
	DAVID Q. NGUYEN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *45-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *74 and 76* is/are allowed.

6)☒ Claim(s) *45-55,58-67,69-73,75,77and 79- 80* is/are rejected.

7)☒ Claim(s) *56,57,68 and 78* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 51-55 and 77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A single claim which claims both a system or a base station and a method steps of using the system is indefinite under 35 U.S.C. 112, second paragraph. *IPXL Holdings v. Amazon.com, Inc.*, 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990) (claim directed to an automatic transmission workstand and the method of using it held ambiguous and properly rejected under 35 U.S.C. 112, second paragraph).

Claims 51-55 and 77 are rejected because the claims claim both a system or a base station comprising a plurality of radio cells each of them comprising at least two sectors, wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein a number of adjacent radio cells build a cell cluster and the method steps using the system to perform function implementing steps as claimed in the claims. The single claim which claims both the system and the method steps of using the apparatus is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 45-50, 58-67, 69-73, 77 and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by Jang (US 5,579,373).

Regarding claim 45, Jang discloses a method for balancing the distribution of interference between radio cells in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication (see fig. 2), wherein each subcarrier block comprises a plurality of subcarriers (see fig. 12B), wherein a number of adjacent radio cells build a cell cluster (see col. 2, lines 55-67), the method comprising the steps of:

grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station within one cell site; Z1-Z8 and ch1 to ch40),

determining a plurality of transmission power levels for each of the radio cells of said cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-20; a signal level received from the base station and measured in the mobile station is compared with a level range received and determined in the base station),

and assigning the plurality of transmission power levels to the subcarrier block sets of radio cells of the cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1).

Regarding claim 69, Jang discloses a base station in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication (see fig. 2, 12B), wherein each subcarrier block comprises a plurality of subcarriers (see fig. 2, 12B), wherein a number of adjacent radio cells build a cell cluster (see fig. 2, 12B and col. 2, line 55 to col. 3, line 15), the base station comprising:

processing means for grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station within one cell site; Z1-Z8 and ch1 to ch40),

determination means for determining a plurality of transmission power levels for each of the radio cells of said cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-20);

a signal level received from the base station and measured in the mobile station is compared with a level range received and determined in the base station), assigning means for assigning the plurality transmission power levels to the subcarrier block sets of radio cells of the cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1).

Regarding claim 73, Jang discloses a base station in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used

for communication (see fig. 2, Z1-Z8), wherein each subcarrier block comprises a plurality of subcarriers (see fig. 12B, ch1 to ch40), wherein N adjacent radio cells build a cell cluster, N being an integer number of 2 or more (see fig. 2 and col. 2, lines 55-67), the base station comprising:

processing means for grouping said subcarrier blocks into N subcarrier block sets in each radio cell of the cell cluster, wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station within one cell site; Z1-Z8 and ch1 to ch40),

determining means for determining N transmission power levels for each of the radio cells of said cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-20),

assigning means for assigning N transmission power levels to the N subcarrier block sets of radio cells of the cell cluster, such that each of the N transmission power levels in a radio cell is assigned to one of the N subcarrier block sets of said radio cell (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1), and

each of the N transmission power levels is assigned to one subcarrier block set of corresponding subcarrier block sets (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1).

Regarding claim 77, Jang discloses wherein the base station is adapted to perform a method for balancing the distribution of interference between radio cells in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of

subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein a number of adjacent radio cells build a cell cluster, the method comprising the steps of:

grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station within one cell site; Z1-Z8 and ch1 to ch40),

determining a plurality of transmission power levels for each of the radio cells of said cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-20; a signal level received from the base station and measured in the mobile station is compared with a level range received and determined in the base station), and

assigning the plurality of transmission power levels to the subcarrier block sets of radio cells of the cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1).

Regarding claims 46, 59 and 70, Jang discloses wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers (see col. 2, line 55 to col. 3, line 14; frequency reuse pattern); wherein the subcarrier block set size of corresponding subcarrier block sets is equal (see fig. 12B).

Regarding claims 47, 49 and 71, Jang discloses wherein said plurality of transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single radio cell, there is a mapping of each of said plurality of transmission power levels to a subcarrier block set of said single radio cell (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7,

lines 1-30), and there is a mapping of each of said plurality of transmission power levels to one of said corresponding subcarrier block sets in the radio cells of said cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30); wherein the mapping is a unique mapping (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30).

Regarding claims 48 and 72, Jang discloses wherein said plurality transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single radio cell, there is a mapping of each of said plurality of subcarrier block sets of said single radio cell to a transmission power level (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30), and there is a mapping of each of said corresponding subcarrier block sets in the radio cells of said cell cluster to one of said plurality of transmission power levels (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30).

Regarding claim 50, Jang discloses wherein the offsets between the transmission power levels in a radio cell vary between the radio cells (see col. 7, lines 20-30, table 1).

Regarding claim 58, Jang discloses wherein the transmission power levels in different radio cells/sectors vary (see col. 7, lines 20-30, table 1)..

Regarding claim 60, Jang discloses reconfiguring the subcarrier block sets in a radio cell/sector (see col. 8, lines 36-53).

Regarding claims 61-64, Jang discloses reconfiguring the transmission power levels in a radio cell/sector (see col. 8, lines 36-53); wherein the reconfiguration of the power levels and/or the subcarrier block sets in the radio cell is performed in accordance with the other radio cells of a cell cluster (see col. 2, lines 54-67 and col. 8, lines 36-53); wherein the reconfiguration of the power levels and/or the subcarrier block sets in the sector is performed in accordance with the

other sectors of a sector cluster (see col. 2, lines 54-67 and col. 8, lines 36-53); wherein the reconfiguration is based on channel quality measurements (see col. 2, lines 54-67 and col. 8, lines 36-53).

Regarding claim 65, Jang discloses signaling information related to a reconfiguration of the subcarrier block sets in a radio cell/sector from the/its radio cell to at least one adjacent radio cell (see col. 2, lines 54-67 and col. 8, lines 36-53).

Regarding claim 66, Jang discloses signaling information related to channel qualities in a radio cell/sector from the/its radio cell to at least one adjacent radio cell (see col. 2, lines 54-67 and col. 8, lines 36-53).

Regarding claim 67, Jang discloses signaling the information to a control unit in the communication system (see col. 2, lines 54-67 and col. 8, lines 36-53).

Regarding claim 80, Jang discloses a radio communication system comprising a base station according to claim 69 (see explanation in claim 69) and a communication terminal (see fig. 3) in a wireless communication system comprising receiving means for receiving information indicating a subcarrier block assignment and/or a subcarrier block set assignment (see col. 6, lines 30-56), and selection means for selecting the signaled assigned subcarrier block and/or signaled assigned subcarrier block set for data transmission (see col. 6, lines 30-56).

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 79 is rejected under 35 U.S.C. 102(e) as being anticipated by Machata (US 6816452).

Regarding claim 79, Machata discloses a communication terminal in a wireless communication system comprising receiving means for receiving information indicating a subcarrier block assignment and/or a subcarrier block set assignment (see col. 9, line 1-17 and col. 10, lines 38-56), and selection means for selecting the signaled assigned subcarrier block and/or signaled assigned subcarrier block set for data transmission (see col. 9, line 1-17 and col. 10, lines 38-56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 51-55 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang (US 5,579,373) in view of Doner (US 5,649,292).

Regarding claim 51, Jang discloses a method for balancing the distribution of interference between radio cells in a wireless communication system, , the method comprising the steps of:

grouping said subcarrier blocks into a plurality of subcarrier block sets in each of the sectors of each radio cell of said cluster (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station within one cell site; Z1-Z8 and ch1 to ch40);

determining a plurality of transmission power levels for each sector of each radio cell of the cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-20; a signal level received from the base station and measured in the mobile station is compared with a level range received and determined in the base station),

assigning the plurality of transmission power levels to the plurality of subcarrier block sets of a radio cell and its adjacent cell of said other radio cells (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1).

Jang does not disclose the system comprising a plurality of radio cells each of them comprising at least two sectors, wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein a number of adjacent radio cells build a cell cluster. Doner teaches a system comprising a plurality of radio cells each of them comprising at least two sectors, wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein a number of adjacent radio cells build a cell cluster (see fig. 3A).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Doner to the method of Jang in order to improve capacity in the wireless system.

Regarding claim 52, Jang also teach each cell comprises corresponding subcarrier block set having the same subcarriers. And Doner teaches wherein each sector of a radio cell has adjacent sectors in the other radio cells of the cell cluster, and wherein a sector of a radio cell and its adjacent sectors in said other radio cells build a sector cluster (see fig. 3A).

Regarding claim 53, Jang also teach wherein said plurality of transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single sector of a radio cell (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30), there is a mapping of each of said plurality of transmission power levels to a subcarrier block set of said sector (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30), and there is a mapping of each of said plurality of transmission power levels to one of said corresponding subcarrier block sets in said sector cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30).

Regarding claims 54-55, Jang also teach wherein said plurality transmission power levels is assigned to the subcarrier block sets of radio cells of the cell cluster, such that in a single sector of a radio cell, there is a mapping of each of said plurality of subcarrier block sets of said sector to a transmission power level (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30), and there is a mapping of each of said plurality of said corresponding subcarrier block sets in said sector cluster to one transmission power level (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30); wherein the mapping is a unique mapping (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30).

Regarding claim 75, Jang discloses a base station in a wireless communication system, the system comprising a plurality of radio cells each of them comprising at least two sectors, wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, and wherein a number adjacent radio cells builds a cell cluster, the base station comprising:

processing means for grouping said subcarrier blocks into N subcarrier block sets in each of the sectors of each radio cell of said cluster, wherein each sector of a radio cell has N-1

adjacent sectors in the other radio cells of the cell cluster, N being an integer number of 2 or more (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station within one cell site; Z1-Z8 and ch1 to ch40),

determination means for determining N transmission power levels for each sector of each radio cell of the cell cluster (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-20),

assigning means for assigning the N transmission power levels to the N subcarrier block sets of a sector of a radio cell and its adjacent sectors of said other radio cells, such thatin a sector, each of the N transmission power levels in the sector of a radio cell is assigned to one of the N subcarrier block sets of said sector (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1), and each of the N transmission power levels is assigned to one subcarrier block set of corresponding sectors (see col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30; the transmission output of each location group is set by the table 1). Jang does not disclose wherein a sector of a radio cell and its adjacent sectors in said other radio cells each comprise corresponding subcarrier block set having the same subcarriers. Doner teaches wherein a sector of a radio cell and its adjacent sectors in said other radio cells each comprise corresponding subcarrier block set having the same subcarriers (see fig. 3A). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Doner to the method of Jang in order to improve capacity and avoid co-channel interference in the wireless system.

Allowable Subject Matter

5. Claims 56-57, 68 and 78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 56-57 and 68, the prior art of record does not mention measuring the path loss of a communication signal of a communication terminal and the path loss due to interference from adjacent radio cells/sectors for said communication signal, and assigning the communication terminal to at least one subcarrier block of a subcarrier block set in a radio cell/sector based on said measurement, as specified in the claims.

Regarding claim 78, the prior art of record does not mention measuring means for measuring the path loss of a communication signal of a communication terminal and the path loss due to interference for said communication signal, andassigning means to assign the communication terminal to at least one subcarrier block of one of said subcarrier block sets based on said measurement, as specified in the claim.

6. Claims 74 and 76 are allowed.

Regarding claims 74 and 76, the prior art of record does not mention y/x transmission power levels on average are assigned to one subcarrier block set of corresponding subcarrier block sets, as specified in the claim.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kang et al. (US 7,355,960 B2)

Hottinen (US 7,412,212 B2).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID Q. NGUYEN whose telephone number is (571)272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis G. West can be reached on (571)272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Q Nguyen/
Primary Examiner, Art Unit 2617

74. A base station in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein N adjacent radio cells build a cell cluster, N being an integer number of 2 or more, the base station comprising:processing means for grouping said subcarrier blocks into xN subcarrier block sets in each radio cell of the cell

cluster, wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers, x being an integer number of 1 or more,determination means for determining yN transmission power levels for each of the radio cells of said cell cluster, y being an integer number of 1 or more,assigning means for assigning yN transmission power levels to the xN subcarrier block sets of radio cells of the cell cluster, such thateach of the yN transmission power levels in a radio cell is assigned to one of the x?N subcarrier block sets of said radio cell,.

75.

76. A base station in a wireless communication system, the system comprising a plurality of radio cells each of them comprising at least two sectors, wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, and wherein a number adjacent radio cells builds a cell cluster, the base station comprising:processing means for grouping said subcarrier blocks into xN subcarrier block sets in each of the sectors of each radio cell of said cluster, wherein each sector of a radio cell has N-1 adjacent sectors in the other radio cells of the cell cluster, and wherein a sector of a radio cell and its adjacent sectors in said other radio cells each comprise corresponding subcarrier block set having the same subcarriers, x being an integer number of 1 or more, an N being an integer number of 2 or moredetermination means for determining yN transmission power levels for each sector of each radio cell of the cell cluster, y being an integer number of 1 or more,assigning means for assigning the yN transmission power levels to the xN subcarrier block sets of a sector of a radio cell and its adjacent sectors of said other radio cells, such thatin a sector, each of the

yN transmission power levels in a sector of a radio cell is assigned to one of the xN subcarrier block sets of said sector, andy/x transmission power levels on average are assigned to one subcarrier block set of corresponding sectors.

78. The base station according to claim 73, further comprising: